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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/743,310

12/23/2003

Jin-wan Jun

1793.1032

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7590

06/09/2006

STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

SNIEZEK, ANDREW L

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/743,310	<b>Applicant(s)</b> JUN, JIN-WAN	
	<b>Examiner</b> Andrew L. Snizek	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-16 is/are allowed.
- 6) ☒ Claim(s) 1-4, 17-19, 21, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 20, 22-25, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/23/03, 8/10/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statements filed 8/10/04 and 12/23/03 have been considered.

***Drawings***

3. The drawings filed 12/23/03 are acceptable to the examiner.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 17-19, 21, 26, 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Paterson et al. (U.S. Patent 6,412,042)

Re claims 1 and 17: Paterson et al. teaches in figures 1-3 a system including a hard disk drive with at least one disk, a spindle motor, a plurality of heads, an actuator arm and as shown in figure 4 a controller (56) to control the heads for reading and writing data to the disk. As discussed in column 8, line 39 – column 9, line 64 (figures 9-11) along with column 19, lines 59-65, the controlling operates in at least two modes issued from the host (58) through interface (60) in which if desired duplicate copies of

information can be recorded at different locations and if not desired recording recoding of different information can be made (single copy). Claim 17 sets forth similar limitations as that of claim 1. The first and second heads are depicted in figure 3.

Re claims 2-3 and 19: note column 6, lines 41-42 and figure 3.

Re claims 4 and 18: Any time a duplicate recording is being performed, the head used is deemed a backup head.

Re claim 21: Paterson et al. teaches a method of writing data to a disk(s) using multiple heads as depicted in figures 1-3 that detects the write position by using at least servo fields (66) which as shown in figure 9 using a memory (80) to store data before recording and as described in column 9, lines 15-19 the data can be duplicated in a second location.

Re claim 26: Note figures 20-1 and 20-2 of Paterson et al. which teaches a method of reading data that detects positions of the primary head and backup head for reading data. The backup data is read from the disk if an error in the reading of the data by the primary head occurs. The claimed predetermined time reads on the same time in which the locations are determined. Only after a time has elapsed after the determination of an error is the backup information read.

Re claim 27: Note step 262 in figure 20-2

***Allowable Subject Matter***

6. Claims 5-6, 20, 22-25, 28-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Claims 7-16 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: The claimed system as set forth in claim 5/4/1 having the microcomputer controlled by firmware and in during a write operation the backup head and the primary head are used to write and rewrite data in the manner as forth is neither taught by nor an obvious variation of the art of record. Claim 6 depends on claim 5.

The claimed system as set forth in claim 20/19/17 having in during a write operation the second head and the first head are used to write and rewrite data in the manner as forth is neither taught by nor an obvious variation of the art of record.

The claimed method as set forth in claims 7 and 16 that writes the same data to write position and a backup position using a primary head and a backup head respectively, where data is read from the backup head if the primary head cannot read data after a predetermined time and then to restore the data read by the backup head to the write position using the primary head is neither taught by nor an obvious variation of the art of record. Claims 8-15 depend directly or indirectly on claim 7.

The claimed method as et forth in claim 23/21 that further includes the steps of upon unsuccessful data writing to the detected backup position, redetecting another write position and rewriting data to the re-detected write position is neither taught by nor an obvious variation of the art of record. Claims 24-25 depend on claim 23.

The claimed method as set forth in claim 22/21 where the detecting the backup position to which the backup head writes data only if the amount of stored data is less than a predetermined value is neither taught by nor an obvious variation of the art of record.

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The claimed method as set forth in claim 28/27/26 that additionally restores the data to the write position using the primary head is neither taught by nor an obvious variation of the art of record. Claim 29 depends on claim 28.

***Conclusion***

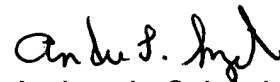
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ageishi et al, Chang, Frandsen and Tomaszewski et al. are cited showing related backup arrangements. Khurshudov et al. teaches a self-raid drive but has a filing date after applicant's filing date.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 571-272-7563. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Andrew L. Snizek  
Primary Examiner  
Art Unit 2627

A.L.S.  
5/31/06